

CLAIMS

What is claimed is:

1. A die cutting apparatus, comprising:
at least one metal base portion defining at least one channel
therein;
at least one blade positioned within said at least one
channel and extending outwardly therefrom to expose at
least one cutting edge along an edge of said at least one
blade, said at least one blade bonded to said at least
one metal base portion.
2. The die cutting apparatus of claim 1, wherein said
metal base portion is comprised of at least two pieces, said
at least one channel separating said at least two pieces, and
said at least one blade interposed between said at least two
pieces.
3. The die cutting apparatus of claim 1, wherein said
at least one blade is substantially flush with a back surface
of said at least one metal plate.

4. The die cutting apparatus of claim 1, further comprising at least one weld to bond said at least one blade to said at least one metal base portion.

5. The die cutting apparatus of claim 1, further comprising a layer of plating over at least a portion of said at least one metal base portion for further securing said at least one blade to said at least one base portion.

6. The die cutting apparatus of claim 1, wherein said at least one channel has a width to substantially match the width of said at least one blade to thereby provide an interference fit between said at least one blade and said at least one base portion.

7. The die cutting apparatus of claim 1, wherein said at least one base portion is comprised of a metal plate material.

8. The die cutting apparatus of claim 1, wherein said at least one cutting edge has a desired contour to substantially match a contour of said at least one channel.

9. The die cutting apparatus of claim 1, wherein a thickness of said at least one base portion is sufficient to provide adequate support for said at least one blade to prevent said at least one blade from bending in a transverse direction during use.

10. The die cutting apparatus of claim 1, wherein said at least one base portion comprises an outer portion and a separate inner portion, said inner portion having a first outer surface defining an outer contour to substantially match an inner contour defined by an inner surface of said outer portion, a gap between said inner portion and said outer portion defining said at least one channel.

11. The die cutting apparatus of claim 1, wherein at least one channel defines at least one elongate slot in said at least one base portion.

12. The die cutting apparatus of claim 11, further comprising at least one second blade positioned at least partially within said at least one elongate slot.

13. The die cutting apparatus of claim 11, wherein said at least one elongate slot is entirely interior to said at least one base portion.

14. The die cutting apparatus of claim 1, wherein said at least one base portion comprises at least one outer portion and first and second inner portions and said at least one blade comprises a first blade disposed within a first channel around said first inner portion and a second blade disposed within a second channel around said second inner portion.

15. The die cutting apparatus of claim 14, wherein said second inner portion is received within said first inner portion.

16. The die cutting apparatus of claim 1, further comprising a covering disposed over at least a portion of a back surface of said at least one metal base portion.

17. The die cutting apparatus of claim 16, wherein said covering is comprised of plastic.

18. The die cutting apparatus of claim 16, wherein said covering has a thickness for allowing use of said die cutting apparatus with an existing die cutting press.

19. The die cutting apparatus of claim 16, wherein said covering extends over said back surface of said at least one metal base portion and along at least a portion of a side of said at least one metal base portion.

20. A method of forming a die cutting apparatus, comprising:
providing a metal base plate having a top surface and a bottom surface;
cutting at least one channel into said metal base plate;
inserting at least one blade into said at least one channel to provide an exposed cutting edge; and
attaching said at least one blade to said metal base plate.

21. The method of claim 20, wherein said inserting comprises placing said metal base plate on a surface and pressing said at least one blade into said at least one channel.

22. The method of claim 20, further comprising preforming a contour in said at least one blade to substantially match a contour of said at least one channel.

23. The method of claim 20, wherein said cutting comprising forming at least two separate pieces from said

metal base plate, said at least one channel being defined between said at least two separate pieces.

24. The method of claim 20, wherein said cutting comprises EDM machining said metal base plate.

25. The method of claim 20, wherein said attaching comprises spot welding said at least one blade to said metal base plate.

26. The method of claim 20, further comprising plating said metal base plate.

27. The method of claim 20, further comprising providing a covering for covering at least a portion of a back side of said metal base plate.

28. The method of claim 27, wherein said providing a covering further comprises forming said covering from plastic.

29. The method of claim 27, further comprising attaching said metal base plate to said covering.

30. The method of claim 27, further comprising configuring said covering for allowing said die cutting apparatus to be used with an existing die cutting press.

31. The method of claim 20, further comprising forming a release pad and attaching said release pad to said base plate on a side of said base plate providing the exposed cutting edge.